

**AMENDMENTS to the CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

Claims 1- 7 (cancelled).

8. (currently amended) A computer-implemented method comprising:  
providing by a computer at least one declaration for an attribute to be handled as a real-time attribute associated with but external to a directory structure;  
receiving by a computer a directory access protocol request for access to one or more attribute values from [[said]] the associated directory structure;  
detecting by a computer in [[said]] the received request a request to access an attribute declared as a real-time external attribute;  
responsive to [[said]] the detecting of a request for a real-time attribute, resolving by a computer a real-time value by obtaining an attribute value from a real-time source external to [[said]] the directory structure;  
responsive to [[said]] the resolving, converting [[said]] by a computer the obtained attribute value from a real-time attribute to a static attribute, wherein [[said]] the real-time attribute is incompatible with [[said]] the directory access protocol, and wherein [[said]] the static attribute is compatible with [[said]] the directory access protocol; and  
returning by a computer to a requester [[said]] the converted real-time attribute directly in [[said]] the directory access protocol, wherein storing and updating of [[said]] the converted real-time attribute value in [[said]] the directory structure is eliminated or avoided.

Claims 9 - 11 (cancelled)

12. (currently amended) The method as set forth in Claim 8 wherein [[said]] the detecting comprises parsing by a computer a Lightweight Directory Access Protocol requests for attribute values.

13. (currently amended) The method as set forth in Claim 8 wherein [[said]] the returning comprises returning [[said]] by a computer the value according to a Lightweight Directory Access Protocol.

Claims 14 - 19 (cancelled).

20. (currently amended) A computer readable storage memory comprising:  
a computer readable storage memory suitable for encoding program instructions ~~computer programs~~; and  
~~one or more computer programs encoded by said computer readable memory and configured to:~~  
first program instructions to provide at least one declaration for an attribute to be handled as a  
real-time attribute associated with but external to a directory structure;  
second program instructions to receive a directory access protocol request for access to one or  
more attribute values from ~~[[said]]~~ the associated directory structure;  
third program instructions to detect in ~~[[said]]~~ the received request a request to access an  
attribute declared as a real-time external attribute;  
fourth program instructions to, responsive to ~~[[said]]~~ the detecting of a request for a real-time  
attribute, resolve a real-time value by obtaining an attribute value from a real-time source  
external to ~~[[said]]~~ the directory structure;  
fifth program instructions to, responsive to ~~[[said]]~~ the resolving, converting ~~[[said]]~~ the obtained  
attribute value from a real-time attribute to a static attribute, wherein ~~[[said]]~~ the real-  
time attribute is incompatible with ~~[[said]]~~ the directory access protocol, and wherein  
~~[[said]]~~ the static attribute is compatible with ~~[[said]]~~ the directory access protocol; and  
sixth program instructions to return to a requester ~~[[said]]~~ the converted real-time attribute  
directly in ~~[[said]]~~ the directory access protocol, wherein storing and updating of ~~[[said]]~~ the  
the converted real-time attribute value in ~~[[said]]~~ the directory structure is eliminated or  
avoided;  
wherein the first, second, third, fourth, fifth and sixth program instructions are stored by the  
computer readable storage memory.

21. (currently amended) The computer readable storage memory as set forth in Claim 20  
wherein the program instructions to detect ~~said detecting~~ comprises program instructions to parse  
~~parsing~~ a Lightweight Directory Access Protocol requests for attribute values.

22. (currently amended) The computer readable storage memory as set forth in Claim 20  
wherein ~~[[said]]~~ the returning comprises returning ~~[[said]]~~ the value according to a Lightweight  
Directory Access Protocol.

23. (currently amended) A system comprising a hardware means for performing a logical process, wherein the logical process comprises:  
providing at least one declaration for an attribute to be handled as a real-time attribute associated with but external to a directory structure;  
receiving a directory access protocol request for access to one or more attribute values from the associated directory structure;  
detecting in the received request a request to access an attribute declared as a real-time external attribute;  
responsive to the detecting of a request for a real-time attribute, resolving a real-time value by obtaining an attribute value from a real-time source external to the directory structure;  
responsive to the resolving, converting the obtained attribute value from a real-time attribute to a static attribute, wherein the real-time attribute is incompatible with the directory access protocol, and wherein the static attribute is compatible with the directory access protocol; and  
returning to a requester the converted real-time attribute directly in the directory access protocol, wherein storing and updated of the converted real-time attribute value in the directory structure is eliminated or avoided.

24. (currently amended) The system as set forth in Claim 23 wherein the hardware means comprises at least in part a microprocessor.

25. (currently amended) The system as set forth in Claim 23 wherein the hardware means comprises at least in part an electronic circuit.

26. (currently amended) The system as set forth in Claim 25 wherein the electronic circuit is selected from a group consisting of ~~comprising~~ an application specific integrated circuit, and a programmable logic circuit.

27. (currently amended) The system as set forth in Claim 23 wherein the detecting comprises parsing a Lightweight Directory Access Protocol requests for attribute values.

28. (currently amended) The system as set forth in Claim 23 wherein the returning comprises returning the value according to a Lightweight Directory Access Protocol.

29. (currently amended) The method of Claim 8 wherein the resolving a real-time value by obtaining an attribute value from a real-time source external to the directory structure further comprises selecting according to a predetermined selection schema a real-time attribute processor from a plurality of available real-time attribute processors, invoking the selected real-time attribute processor, and wherein the resolving is performed by the invoked real-time attribute processor.

30. (currently amended) The method of Claim 29 wherein the predetermined selection schema comprises a schema employing a variation of a name of the requested directory attribute to identify a real-time attribute processor for selection.

31. (currently amended) The computer readable memory of Claim 20 wherein the resolving a real-time value by obtaining an attribute value from a real-time source external to the directory structure further comprises selecting according to a predetermined selection schema a real-time attribute processor from a plurality of available real-time attribute processors, invoking the selected real-time attribute processor, and wherein the resolving is performed by the invoked real-time attribute processor.

32. (currently amended) The computer readable memory of Claim 31 wherein the predetermined selection schema comprises a schema employing a variation of a name of the requested directory attribute to identify a real-time attribute processor for selection.

33. (currently amended) The system of Claim 23 wherein the logical process resolving a real-time value by obtaining an attribute value from a real-time source external to the directory structure further comprises a logical process selecting according to a predetermined selection schema a real-time attribute processor from a plurality of available real-time attribute processors, invoking the selected real-time attribute processor, and wherein the resolving is performed by the invoked real-time attribute processor.

34. (currently amended) The system of Claim 33 wherein the predetermined selection schema comprises a schema employing a variation of a name of the requested directory attribute to identify a real-time attribute processor for selection.